COMPARATIVE IMMUNOLOGY, MICROBIOLOGY AND INFECTIOUS DISEASES

The International Journal for Medical and Veterinary Researchers and Practitioners

Editor-in-chief: **Charles Pilet** *Alfort, France*

VOLUME 10, 1987
VOLUME CONTENTS AND AUTHOR INDEX

Pergamon Press Oxford · New York · Beijing · Frankfurt
São Paulo · Sydney · Tokyo · Toronto

COMPARATIVE IMMUNOLOGY, MICROBIOLOGY AND INFECTIOUS DISEASES

The International Journal for Medical and Veterinary Researchers and Practitioners

Editor-in-Chief

Prof. Charles Pilet, Ecole Nationale Vétérinaire d'Alfort, 7 Avenue du Général De Gaulle, 94704 Maisons-Alfort Cedex, France

Editorial Advisory Board

Dr A. Bartha, Department of Epizootiology, University of Veterinary Medicine, Budapest XIV, Hungaria Körut 23-25, H-1581 Budapest, Hungary
Prof. J. Bernard, Hôpital Saint-Louis, 2, Place du Docteur Fournier, 75475 Paris, Cedex 10, France
Dr K. Bettleheim, Clinical Pathology Department, Fairfield Hospital, Yarra Bend Road, Melbourne, Victoria 3078, Australia
Prof. H. Blobel, Institut für Bakteriologie und Immunologie, Frankfurter strasse 107, 6300 Giessen, F.R.G.
Prof. F. Burki, Institut für Virologie, Veterinarmedizinische Universität Linke Bahngasse 11, A-1030 Wien, Austria
Prof. C. Castrucci, Istituto di Malattie Infettive. Profilassi e Polizia Veterinaria, Facolta di Veterinaria, Via S. Costanzo, 4, 06100 Perugia, Italy
Mr A. W. Dudley Jr, Chief Laboratory Service (113), VA Medical Center, 2002 Holcombe Blvd, Houston, TX 77211, U.S.A.
Prof. P. Goret, 31, Rue Faidherbe, 94 St Mandé, France
Prof. J. Goudswaard, Werkgroep Immunologie, Fakulteit der Diergeneeskunde Rijksuniversiteit, Yalelaan, 1, Utrecht, The Netherlands
Dr R. B. Griffiths, Directeur de la Santé animale, F.A.O., Viale delle Terme di Caracalla, Rome, Italy
Dr I. Ivanov, Ministry of Agriculture and Food Industry, Central Veterinary Research Institute, 15 P. Slaveikov Blvd. 1606, Sofia, Bulgaria
Prof. D. W. Johnson, Department of Large Animal Clinical Sciences, College of Veterinary Medicine, University of Minnesota, St Paul, MN 55108, U.S.A.
Dr I. R. Kovalenko, Directeur de l'Institut de Médecine Vétérinaire Expérimentale d'U.R.S.S., Ministère de l'Agriculture, Orlikov Pereoulok I/II, Moscow, U.S.S.R.
Dr J. Kral, Institut vétérinaire central d'Etat, Sidlivtni 156, 16503 Praha 6 Suchdol, Czechoslovakia
Prof. T. T. Kramer, Department of Microbiology and Preventive Medicine, College of Veterinary Medicine, Iowa State University, Ames, IA 50011, U.S.A.
Dr B. Lasalle, 6200 Westchester Park Drive, Apartment No. 1212, College Park, MD 20740, U.S.A.
Prof. Lepine, 15, Rue Albéric-Magnard, 75016 Paris, France
Prof. D. G. McKercher, 749 Anderson Road, Davis, CA 95616, U.S.A.
Prof. B. B. Mallick, Indian Veterinary Research Institute, Izatnagar 243 122 U.P., India
Dr N. P. Markham, National Health Institute, P.O. Box 7126, Wellington South, New Zealand
Dr W. B. Martin, Animal Diseases Research Association, Moredun Institute, 408 Gilmerton Road, Edinburgh EH17 7JH, U.K.
Dr Z. Matiytas, Institute of Food Hygiene and Technology, University of Veterinary Medicine, Palackeho 1-3, 612 42 Brno, Czechoslovakia
Prof. A. Mayr, Institut für Med. Mikrobiologie Infektions-und Seuchenmedizin, Veterinärstrasse 13, D 8000 München 22, F.R.G.
Prof. H. Mollaret, Institut Pasteur, 25, rue du Docteur Roux, 75024 Paris, Cedex 15, France
Dr A. B. Paterson, Department of Biochemistry, University of Surrey, Guildford, Surrey GU2 5XH, U.K.
Dr P. Perreau, Institut d'Elevage et de Médecine Vétérinaire des Pays Tropicaux, 10, rue Pierre Curie, 94704 Maisons-Alfort Cedex, France
Dr J. M. Perron, Ecole Nationale Vétérinaire d'Alfort, Service de Microbiologie, 7, Avenue du Général de Gaulle, 94704 Maisons-Alfort, France
Prof. L. Peti, Veterinary Medical Research Institute, Hungarian Academy of Sciences, Hungária Körut 21, Budapest XIV, Hungary
Mr A. Ritchie, NADC, P.O. Box 70, Ames, IA 50010, U.S.A.
Prof. J. H. Steele, The University of Texas, P.O. Box 20186, Houston, TX 77025, U.S.A.
Prof. M. Trzeciyński, The Veterinary Institute, al. Partyzantow 57, 24100 Pulawy, Poland
Dr J. G. Van Bekkum, Centraal Diergeneeskundig Institut, AFD Virologie, Houtribweg 39, Lelystad, The Netherlands
Dr R. Vitroz, Office International des Epizooties, 12, rue Prony, 75017 Paris, France
Prof. J. T. Wang, Department of Veterinary Medicine, National Chung Hsing University, Taichung 400, Taiwan, Republic of China

Publishing Office: Pergamon Press plc, Journals Production Unit, Hennock Road, Marsh Barton, Exeter, Devon EX2 8NE (*Tel.* Exeter (0392) 51558; *Telex* 42749)

Subscription and Advertising Office: *North America*—Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A.
Rest of the World—Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW (*Tel.* Oxford (0865) 64881)

Published quarterly—1 volume per annum.

Annual Subscription Rates 1988: Annual institutional subscription rate (1988) DM 500.00; 2-year institutional rate (1988/89) DM 950.00; Personal subscription rate for those whose library subscribes at the regular rate (1988) DM 115.00. Prices are subject to amendment without notice.

Microform Subscriptions and Back Issues: Back issues of all previously published volumes are available direct from Pergamon Press. Back issues of Pergamon journals in microform can be obtained from: UMI, 300 North Zeeb Road, Ann Arbor, MI 48106, U.S.A.

Copyright © 1988 Pergamon Press plc

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. However, assignment of copyright is not required from authors who work for organizations which do not permit such assignment. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical photocopying, recording or otherwise, without permission in writing from the copyright holder.

Photocopying Information for Users in the U.S.A.: The Item-fee Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided the stated fee for copying beyond that permitted by Section 107 or 108 of the U.S. Copyright Law is paid. The appropriate remittance of $3.00 per copy per article is paid directly to the Copyright Clearance Center inc., 27 Congress Street, Salem, MA 01970. *Permission for other use.* The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

The Item-fee Code for this publication is: 0147-9571/88 $3.00 + 0.00

CONTENTS

Number 1

J. M. Person, J. Frottier, Y. le Garrec, F. Barrat, R. Bastin and Ch. Pilet — 1 Exploration of the cellular mediated immunity by the blastogenesis test during chronic brucellosis in human

F. Petitjean, J. G. Guillet, B. Vray, A. D. Strosberg and J. Hoebeke — 9 Partial characterization of a *Legionella pneumophila* serogroup 1 immunodominant antigenic determinant recognized by a monoclonal antibody. *Legionella* specific antigenic determinant

L. O. Wosu — 25 Optimal parameters for *in vitro* growth of parvoviruses

K. A. Onyia — 33 *In vivo* chemotaxis of rat leucocytes to *N*-formyl-L-methionyl-L-leucyl-L-phenylalanine (FMLP)

G. Castrucci, F. Frigeri, M. Ferrari, S. Ranucci, V. Aldrovandi, V. Cilli, L. Rampichini and R. Gatti — 41 Experimental infection of calves with strains of *Bovid herpesvirus*-4

I. Kakoma, R. M. Mwendapole, M. Bulsara, S. Mabenga, C. S. Syabula and F. K. Wurapa — 51 Profiles of heterophile antibody to various mammalian erythrocytes in rural populations of Zambia

E. Thiry, J. Saliki, M. Bublot and P.-P. Pastoret — 59 Reactivation of infectious bovine rhinotracheitis virus by transport

M. Lipkind, B. Rivetz and E. Shihmanter — 65 The first isolation of Newcastle disease virus (NDV) from free-flying birds in Israel: comparative studies on NDV strain isolated from migrating starlings (*Sturnus vulgaris*) wintering in Israel

M. Amadori, M. Bugnetti and D. Tironi — 71 Induction and characterization of swine β interferon

Number 2

James G. Bender, Dennis E. Van Epps and Carleton C. Stewart — 79 Regulation of myelopoiesis

Josef Sellei — 93 Interaction of bovine immunoglobulins with complement

Gursharan S. Chhatwal and Hans Blobel — 99 Heterogeneity of fibronectin reactivity among streptococci as revealed by binding of fibronectin fragments

B. A. Salih, A. G. Ostle and R. F. Rosenbusch — 109 Vaccination of cattle with *Mycoplasma bovoculi* antigens: evidence for field immunity

M. Truszczyński and J. Osek — 117 Occurrence of mannose resistant hemagglutinins in *Escherichia coli* strains isolated from porcine colibacillosis

C. Salomoni, M. Fiorentino, D. L. Palenzona, E. Di Maio and G. De Benedictis — 125 Modification of muscle proteins IEF patterns in a fish *Lebistes reticulatus*, related to diet, immunization and genetic selection

M. Lipkind, Y. Weisman and Esther Shihmanter — 133 The isolation of influenza virus from chickens in Israel and studies on its antigenic relationships with other native isolates of the same antigenicity by means of monoclonal antibodies

Soufiane Djilali and André-Laurent Parodi — 141 T and B peripheral blood lymphocytes in normal and lymphocytotic sheep

L. Leon-Vizcaino, M. Hermoso de Mendoza and F. Garrido — 149 Incidence of abortions caused by leptospirosis in sheep and goats in Spain

S. W. Wanyangu, M. F. Palmer, Wendy J. Zochowski and Sheena A. Waitkins — 155 Comparison of the DIFCO and PATOC 1 slide antigens in the screening of leptospirosis

I Announcement

i New Patents Section

Number 3/4

Chike Onyekaba, Lance Bueon, Pin King, Jerome Fahrmann and Sagar M. Goyal — 163 Susceptibility of various cell culture systems to pseudorabies virus

Sagar M. Goyal, Han Soo Joo, Jacquelynn R. Mourning, Scott W. McPherson and Krishna Goyal — 167 Comparison of three serotests for the detection of pseudorabies antibodies in pigs

Véronique Marius-Jestin, Martine Cherbonnel, J. P. Picault, G. Bennejean avec le collaboration technique de Y. Morin, L. Le Coq et Annie Le Bachelier	173	Isolement chez des canards mulards d'une souche hypervirulente de virus de la Peste du canard et d'un Paramyxovirus aviaire de type 6
Soufiane Djilali, Henri-Jean Boulouis et Xavier Montagutelli	187	Les marqueurs lymphocytaires chez les animaux domestiques—I. Lectines mitogènes et lectines non mitogènes
Raili Tanskanen	205	Growth and interaction of *Mycoplasma bovirhinis* and *Mycoplasma dispar in vitro*
George E. Keller III, Daniel M. Lewis and Stephen A. Olenchock	219	Demonstration of inflammatory cell population changes in rat lungs in response to intratracheal instillation of spring wheat dust using lung enzymatic digestion and centrifugal elutriation
K. M. Charlton, G. A. Casey and J. B. Campbell	227	Experimental rabies in skunks: immune response and salivary gland infection